

0590
0905

2

OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/938,418

DATE: 09/13/2001

TIME: 11:04:36

Input Set : A:\P5009R1_sequence_listing.wpd

Output Set: N:\CRF3\09132001\I938418.raw

ENTERED

3 <110> APPLICANT: Ashkenazi, Avi J.
4 Goddard, Audrey
5 Godowski, Paul
6 Gurney, Austin L.
7 Polakis, Paul
8 Williams, P. Mickey
9 Wood, William I.
10 Wu, Thomas D.
11 Zhang, Zemin
13 <120> TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE DIAGNOSIS AND
14 TREATMENT OF TUMOR
16 <130> FILE REFERENCE: P5009R1
C--> 18 <140> CURRENT APPLICATION NUMBER: US/09/938,418
C--> 18 <141> CURRENT FILING DATE: 2001-08-23
18 <150> PRIOR APPLICATION NUMBER: 60/081,071
19 <151> PRIOR FILING DATE: 1998-04-07
21 <150> PRIOR APPLICATION NUMBER: 60/085,697
22 <151> PRIOR FILING DATE: 1998-05-15
24 <150> PRIOR APPLICATION NUMBER: 60/097,022
25 <151> PRIOR FILING DATE: 1998-08-18
27 <150> PRIOR APPLICATION NUMBER: 60/101,922
28 <151> PRIOR FILING DATE: 1998-09-24
30 <150> PRIOR APPLICATION NUMBER: 60/103,679
31 <151> PRIOR FILING DATE: 1998-10-08
33 <150> PRIOR APPLICATION NUMBER: PCT/US99/05028
34 <151> PRIOR FILING DATE: 1999-03-08
36 <150> PRIOR APPLICATION NUMBER: PCT/US99/12252
37 <151> PRIOR FILING DATE: 1999-06-02
39 <150> PRIOR APPLICATION NUMBER: PCT/US99/20111
40 <151> PRIOR FILING DATE: 1999-09-01
42 <150> PRIOR APPLICATION NUMBER: PCT/US99/28565
43 <151> PRIOR FILING DATE: 1999-12-02
45 <150> PRIOR APPLICATION NUMBER: PCT/US00/04342
46 <151> PRIOR FILING DATE: 2000-02-18
48 <150> PRIOR APPLICATION NUMBER: PCT/US00/04341
49 <151> PRIOR FILING DATE: 2000-02-18
51 <150> PRIOR APPLICATION NUMBER: PCT/US00/05841
52 <151> PRIOR FILING DATE: 2000-03-02
54 <150> PRIOR APPLICATION NUMBER: PCT/US00/08439
55 <151> PRIOR FILING DATE: 2000-03-30
57 <150> PRIOR APPLICATION NUMBER: PCT/US00/14042
58 <151> PRIOR FILING DATE: 2000-05-22
60 <150> PRIOR APPLICATION NUMBER: PCT/US00/23328
61 <151> PRIOR FILING DATE: 2000-08-24
63 <150> PRIOR APPLICATION NUMBER: PCT/US00/32678
64 <151> PRIOR FILING DATE: 2000-12-01
66 <150> PRIOR APPLICATION NUMBER: PCT/US01/06520

RAW SEQUENCE LISTING

DATE: 09/13/2001

PATENT APPLICATION: US/09/938,418

TIME: 11:04:36

Input Set : A:\P5009R1_sequence_listing.wpd

Output Set: N:\CRF3\09132001\I938418.raw

```

67 <151> PRIOR FILING DATE: 2001-02-28
69 <150> PRIOR APPLICATION NUMBER: PCT/US01/17800
70 <151> PRIOR FILING DATE: 2001-06-01
72 <150> PRIOR APPLICATION NUMBER: PCT/US01/19692
73 <151> PRIOR FILING DATE: 2001-06-20
75 <150> PRIOR APPLICATION NUMBER: PCT/US01/21066
76 <151> PRIOR FILING DATE: 2001-06-29
78 <150> PRIOR APPLICATION NUMBER: PCT/US01/21735
79 <151> PRIOR FILING DATE: 2001-07-09
81 <160> NUMBER OF SEQ ID NOS: 10
83 <210> SEQ ID NO: 1
84 <211> LENGTH: 537
85 <212> TYPE: DNA
86 <213> ORGANISM: Homo Sapien
88 <400> SEQUENCE: 1
89  taaaacagct acaatattcc agggccagtc acttgccatt tctcataaca 50
91  gcgtcagaga gaaagaactg actgaaacgt ttgagatgaa gaaagttctc 100
93  ctctcgatca cagccatctt ggcagtggct gttggtttcc cagtctctca 150
95  agaccaggaa cgagaaaaaa gaagtatcag tgacagcgat gaattagctt 200
97  cagggttttt tgtgttccct taccatatac catttcgccc acttccacca 250
99  attccatttc caagatttcc atgggttaga cgtaattttc ctattccaat 300
101 acctgaatct gcccctacaa ctccccttcc tagcgaaaag taaacaagaa 350
103 ggataagtca cgataaacct ggtcacctga aattgaaatt gagccacttc 400
105 cttgaagaat caaaattcct gttaataaaa gaaaaacaaa tgtaattgaa 450
107 atagcacaca gcattctcta gtcaatatct ttagtgatct tctttaataa 500
109 acatgaaagc aaagattttg gtttcttaat ttccaca 537
111 <210> SEQ ID NO: 2
112 <211> LENGTH: 1257
113 <212> TYPE: DNA
114 <213> ORGANISM: Homo Sapien
116 <400> SEQUENCE: 2
117 ggagagaggc gcgcgggtga aaggcgcatt gatgcagcct gcggcggcct 50
119 cggagcgcgg cggagccaga cgctgaccac gttcctctcc tcggtctcct 100
121 ccgcctccag ctccgcgctg cccggcagcc gggagccatg cgaccccagg 150
123 gcccgcgcgc ctcccgcgag cggtccgcg gcctcctgct gctcctgctg 200
125 ctgcagctgc ccgcgcgctc gagcgctctt gagatcccca aggggaagca 250
127 aaaggcgcag ctccggcaga gggaggtggt ggacctgtat aatggaatgt 300
129 gcttacaagg gccagcagga gtgcctggtc gagacgggag ccctggggcc 350
131 aatgttattc cgggtacacc tgggatccca ggtcgggatg gattcaaagg 400
133 agaaaagggg gaatgtctga gggaaagctt tgaggagtcc tggacacca 450
135 actacaagca gtgttcattg agttcattga attatggcat agatcttggg 500
137 aaaattgcgg agtgtagatt tacaagatg cgttcaaata gtgctctaag 550
139 agttttgttc agtggtcac ttccgctaaa atgcagaaat gcatgctgtc 600
141 agcgttggtt ttccacattc aatggagctg aatgttcagg acctcttccc 650
143 attgaagcta taatttatct ggaccaagga agccctgaaa tgaattcaac 700
145 aattaatatt catcgcactt cttctgtgga aggactttgt gaaggaattg 750
147 gtgctggatt agtggatggt gctatctggg ttggcacttg ttcagattac 800
149 ccaaaaggag atgcttctac tggatggaat tcagtttctc gcatcattat 850
151 tgaagaacta ccaaaataaa tgctttaatt ttcatattgct acctcttttt 900

```

RAW SEQUENCE LISTING

DATE: 09/13/2001

PATENT APPLICATION: US/09/938,418

TIME: 11:04:36

Input Set : A:\P5009R1_sequence_listing.wpd

Output Set: N:\CRF3\09132001\I938418.raw

```

153 ttattatgcc ttggaatggt tcaacttaaat gacatttttaa ataagtttat 950
155 gtatacatct gaatgaaaag caaagctaaa tatgtttaca gaccaaagtg 1000
157 tgatttcaca ctgttttttaa atctagcatt attcattttg cttcaatcaa 1050
159 aagtggtttc aatattttttt ttagttgggtt agaatacttt cttcatagtc 1100
161 acattctctc aacctataat ttggaatatt gttgtgggtct tttgtttttt 1150
163 ctcttagtat agcatttttta aaaaaatata aaagctacca atctttgtac 1200
165 aatttgtaaa tggttaagaat tttttttata tctgttaaat aaaaattatt 1250
167 tccaaca 1257
169 <210> SEQ ID NO: 3
170 <211> LENGTH: 1847
171 <212> TYPE: DNA
172 <213> ORGANISM: Homo Sapien
174 <400> SEQUENCE: 3
175 gccaggggaa gaggggtgatc cgacccggggg aaggctcgctg ggcaggggca 50
177 gttgggaaag cggcagcccc cgccgcccc gcagccctt ctccctcttt 100
179 ctcccacgtc ctatctgcct ctcgctggag gccagggcgt gcagcatcga 150
181 agacaggagg aactggagcc tcattggccg gcccggggcg ccggcctcgg 200
183 gcttaaatag gagctccggg ctctggctgg gaccgaccg ctgcccggcg 250
185 cgctcccgtc gctcctgcgg ggtgatggaa aaccccagcc cggccgcgcg 300
187 cctgggcaag gccctctgcg ctctcctcct ggccactctc ggccgcgcgg 350
189 gccagcctct tgggggagag tccatctgtt ccgcccagagc cccggccaaa 400
191 tacagcatca ccttcacggg caagtggagc cagacggcct tccccaaagca 450
193 gtaccccctg ttccgcccc ctgcgcagtg gtcttcgctg ctggggggcg 500
195 cgcatagtct cgactacagc atgtggagga agaaccagta cgtcagtaac 550
197 gggctgcgcg actttgcgga gcgcggcgag gcctgggcgc tgatgaagga 600
199 gatcgaggcg gggggggagg cgctgcagag cgtgcacgag gtgttttcgg 650
201 cgcccgcgt cccagcggc accgggcaga cgtcggcgga gctggagggtg 700
203 cagcgcaggc actcgtctgt ctggtttgtg gtgcgcacgt tgcccagccc 750
205 cgactggttc gtgggcgtgg acagcctgga cctgtgcgac ggggaccgtt 800
207 ggcgggaaca ggcggcgctg gacctgtacc cctacgacgc cgggacggac 850
209 agcggcttca cctctcctc ccccaacttc gccaccatcc cgcaggacac 900
211 ggtgaccgag ataacgtcct cctctcccag ccacccggcc aactccttct 950
213 actaccgcgc gctgaaggcc ctgcctccca tcgccagggt gacactgctg 1000
215 cggctgcgac agagccccag ggccttcate cctccgcgcc cagtccctgcc 1050
217 cagcagggac aatgagattg tagacagcgc ctcaagtcca gaaacgcgcg 1100
219 tggactgcga ggtctccctg tggctgctct ggggactgtg cggaggccac 1150
221 tgtgggaggc tcgggaccaa gagcaggact cgctacgtcc ggggtccagcc 1200
223 cgccaacaac gggagcccc gcccagagct cgaagaagag gctgagtgcg 1250
225 tccctgataa ctgctctaa gaccagagcc ccgcagcccc tggggcccc 1300
227 cggagccatg ggggtgtcggg ggctcctgtg caggctcatg ctgcaggcgg 1350
229 ccgagggcac aggggggttt gcgctgctcc tgaccgcggg gaggccgcgc 1400
231 cgaccatctc tgcactgaag ggccctctgg tggccggcac gggcattggg 1450
233 aaacagcctc ctcccttccc aaccttgctt cttaggggcc cccgtgtccc 1500
235 gtctgctctc agcctcctcc tctgcagga taaagtcac cccaaggctc 1550
237 cagctactct aaattatgtc tcttataag ttattgctgc tccaggagat 1600
239 tgtcctcat cgtccagggg cctggctccc acgtggttgc agatacctca 1650
241 gacctgttgc tctaggctgt gctgagccca ctctcccgag ggcgcaccca 1700
243 agcgggggac acttgagaag tgaataaatg gggcggtttc ggaagcgtca 1750
245 gtgtttccat gttatggatc tctctgcgtt tgaataaaga ctatctctgt 1800

```

RAW SEQUENCE LISTING

DATE: 09/13/2001

PATENT APPLICATION: US/09/938,418

TIME: 11:04:36

Input Set : A:\P5009R1_sequence_listing.wpd

Output Set: N:\CRF3\09132001\I938418.raw

```
247  tgctcacaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaa 1847
249  <210> SEQ ID NO: 4
250  <211> LENGTH: 4040
251  <212> TYPE: DNA
252  <213> ORGANISM: Homo Sapien
254  <400> SEQUENCE: 4
255  gaggaaccta ccggtaccgg ccgcgcgctg gtagtcgccg gtgtggctgc 50
257  acctcaccaa tcccgtgcgc cgcggctggg ccgtcggaga gtgcgtgtgc 100
259  ttctctcctg cacgcggtgc ttgggctcgg ccaggcgggg tccgccgcca 150
261  ggggtttgagg atgggggagt agctacagga agcgaacccg cgatggcaag 200
263  gtatatTTTT gtggaatgaa aagggaagtat tagaaatgag ctgaagacca 250
265  ttcacagatt aatatTTTTg gggacagatt tgtgatgctt gattcaccct 300
267  tgaagtaatg tagacagaag ttctcaaatt tgcatattac atcaactgga 350
269  accagcagtg aatcttaatg ttactttaaa tcagaacttg cataagaaaag 400
271  agaatgggag tctggttaaa taaagatgac tatatcagag acttgaaaag 450
273  gatcattctc tgttttctga tagtgtatat ggccatttta gtgggcacag 500
275  atcaggatTT ttacagTTta cttggagtgt ccaaaactgc aagcagtaga 550
277  gaaataagac aagctTTTcaa gaaattggca ttgaagttac atcctgataa 600
279  aaaccCGaat aaccCGaatg cacatggcga ttttttaaaa ataaatagag 650
281  catatgaagt actcaaaagt gaagatctac ggaaaaagta tgacaaatat 700
283  ggagaaaaagg gacttgagga taatcaaggT ggccagtatg aaagctggaa 750
285  ctattatcgt tatgattttg gtattttatga tgatgatcct gaaatcataa 800
287  cattggaaaag aagagaattt gatgctgctg ttaattctgg agaactgtgg 850
289  tttgtaaatt tttactcccc aggctgttca cactgccatg atttagctcc 900
291  cacatggaga gactttgcta aagaagtggg tgggttactt cgaattggag 950
293  ctgttaactg tggatgatga agaattgctt gccgaatgaa aggagtcaac 1000
295  agctatccca gtctcttcat ttttcggtct ggaatggccc cagtgaataa 1050
297  tcatggagac agatcaaaag agagtTTagt gagtTTtgca atgcagcatg 1100
299  ttagaagtac agtgacagaa ctttgacag gaaattttgt caactccata 1150
301  caaaactgctt ttgctgctgg tattggctgg ctgatcactt tttgttcaaa 1200
303  aggaggagat tgtttgactt cacagacacg actcaggctt agtggcatgt 1250
305  tgtttctcaa ctcatggat gctaaagaaa tatatttgga agtaatacat 1300
307  aatcttccag attttgaact actttcggca aacacactag aggatcgttt 1350
309  ggctcatcat cggtggtgtg tatttttttca ttttggaaaa aatgaaaatt 1400
311  caaatgatcc tgagctgaaa aaactaaaaa ctctacttaa aaatgatcat 1450
313  attcaagttg gcaggtttga ctgttctctc gcaccagaca tctgtagtaa 1500
315  tctgtatgtt tttcagccgt ctctagcagt atttaaagga caaggaacca 1550
317  aagaatatga aattcatcat ggaaagaaga ttctatatga tatacttgcc 1600
319  tttgccaaaag aaagtgtgaa ttctcatgtt accacgcttg gacctcaaaa 1650
321  ttttcttgcc aatgacaaaag aaccatggct tgttgatttc tttgccccct 1700
323  ggtgtccacc atgtcgagct ttactaccag agttacgaag agcatcaaat 1750
325  cttctttatg gtcagcttaa gtttggtaca ctagattgta cagttcatga 1800
327  gggactctgt aacatgtata acattcaggc ttatccaaca acagtggat 1850
329  tcaaccagtc caacattcat gagtatgaag gacatcactc tgctgaacaa 1900
331  atcttggagt tcatagagga tcttatgaat ccttcagtgg tctcccttac 1950
333  acccaccacc ttcaacgaac tagttacaca aagaaaacac aacgaagtct 2000
335  ggatgggttga tttctattct ccgtgggtgtc atccttgcca agtcttaatg 2050
337  ccagaatgga aaagaatggc ccggacatta actggactga tcaacgtggg 2100
339  cagtatatag tgccaacagt atcattcttt ttgtgcccag gaaaacgttc 2150
```

RAW SEQUENCE LISTING

DATE: 09/13/2001

PATENT APPLICATION: US/09/938,418

TIME: 11:04:36

Input Set : A:\P5009R1_sequence_listing.wpd

Output Set: N:\CRF3\09132001\I938418.raw

```

341 aaagataccc tgagataaga ttttttcccc caaaatcaaa taaagcttat 2200
343 cagtatacaca gttacaatgg ttggaatagg gatgcttatt ccctgagaat 2250
345 ctgggggtcta ggattttttac ctcaagtatc cacagatcta acacctcaga 2300
347 ctttcagtga aaaagttcta caaggggaaaa atcattgggt gattgatttc 2350
349 tatgctcctt ggtgtggacc ttgccagaat tttgctccag aatttgagct 2400
351 cttggctagg atgattaaag gaaaagtga agctggaaaa gtagactgtc 2450
353 aggccttatgc tcagacatgc cagaaagctg ggatcagggc ctatccaact 2500
355 gttaagtttt atttctacga aagagcaaa agaaattttc aagaagagca 2550
357 gataaatacc agagatgcaa aagcaatcgc tgccttaata agtgaaaaat 2600
359 tggaaactct ccgaaatcaa ggcaagagga ataaggatga actttgataa 2650
361 tgttgaagat gaagaaaaag tttaaaagaa attctgacag atgacatcag 2700
363 aagacaccta tttagaatgt tacatttatg atgggaatga atgaacatta 2750
365 tcttagactt gcagttgtac tgccagaatt atctacagca ctggtgtaaa 2800
367 agaagggtct gcaaactttt tctgtaaagg gccgggtttat aaatatatta 2850
369 gactttgcag gctataatat atggttcaca catgagaaca agaataagat 2900
371 catcatgtat tctttgttat ttgcttttaa caacctttta aaaatattaa 2950
373 aacgattctt agctcagagc catacaaaa taggctggat tcagtccatg 3000
375 gaccatagat tgctgtcccc ctgcacggac ttataatgtt tcagggtggct 3050
377 ggcttgaaca tgagtctgct gtgctatcta cataaatgtc taagttgtat 3100
379 aaagtccact ttcccttcac gttttttggc tgacctgaaa agaggtaact 3150
381 tagtttttgg tcaactgttc tcttaaaaa gctatcccta accatatatt 3200
383 tatatttcgt tttaaaaaca cccatgatgt ggcacagtaa acaaaccttg 3250
385 ttatgctgta ttattatgag gagattcttc attgttttct ttccttctca 3300
387 aaggttgaaa aaatgctttt aatttttcac agccgagaaa cagtgcagca 3350
389 gtatatgtgc acacagtaag tacacaaatt tgagcaacag taagtgcaca 3400
391 aattctgtag tttgctgtat catccaggaa aacctgaggg aaaaaatta 3450
393 tagcaattaa ctgggcattg tagagtatcc taaatatgtt atcaagtatt 3500
395 tagagttcta tattttaaag atatatgtgt tcatgtattt tctgaaattg 3550
397 ctttcataga aattttccca ctgatatgtt atttttgagg catctaatat 3600
399 ttacatatatt gccttttgaa ctttgttttg acctgtatcc tttatttaca 3650
401 ttgggttttt ctttcatagt tttggttttt cactcctgtc cagtctattt 3700
403 attattcaaa taggaaaaat tactttacag gttgttttac tgtagcttat 3750
405 aatgatactg tagttattcc agttactagt ttactgtcag agggctgcct 3800
407 ttttcagata aatattgaca taataactga agttattttt ataagaaaat 3850
409 caagtatata aatctaggaa agggatcttc tagtttctgt gttgtttaga 3900
411 ctcaaagaat cacaaatttg tcagtaacat gtagttgttt agttataatt 3950
413 cagagtgtac agaatggtaa aaattccaat cagtcaaaag aggtcaatga 4000
415 attaaaaggc ttgcaacttt ttcaaaaaaa aaaaaaaaaa 4040
417 <210> SEQ ID NO: 5
418 <211> LENGTH: 1915
419 <212> TYPE: DNA
420 <213> ORGANISM: Homo Sapien
422 <400> SEQUENCE: 5
423 ggcaacatgg ctgcagcaggc ttgccccaga gccatggcaa agaatggact 50
425 tgtaattttgc atcctggtga tcaccttact cctggaccag accaccagcc 100
427 acacatccag attaaaagcc aggaagcaca gcaaacgtcg agtgagagac 150
429 aaggatggag atctgaagac tcaaatgaa aagctctgga cagaagtcaa 200
431 tgccttgaag gaaattcaag ccctgcagac agtctgtctc cgaggcacta 250
433 aagttcacaa gaaatgctac cttgcttcag aaggtttgaa gcatttccat 300

```

VERIFICATION SUMMARY

DATE: 09/13/2001

PATENT APPLICATION: US/09/938,418

TIME: 11:04:37

Input Set : A:\P5009R1_sequence_listing.wpd

Output Set: N:\CRF3\09132001\I938418.raw

L:18 M:270 C: Current Application Number differs, Replaced Current Application No

L:18 M:271 C: Current Filing Date differs, Replaced Current Filing Date